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ABSTRACT

The widespread use of standardized tests and the high stakes decisions made because of their scores are facts that cannot be ignored. It can be argued, therefore, that assessment literacy should be included in the training of teachers and administrators. To determine the extent of selected assessment knowledge among preservice and inservice teachers a survey of test-taking considerations, test-administration procedures, and test-wiseness strategies was sent to 130 preservice and 119 inservice teachers who were enrolled in coursework at a large midwestern university. One-third of the preservice and 10 percent of the inservice teachers had not taken any tests and measurements courses. Results suggest that both groups could benefit from additional knowledge about standardized test administration, preparation of students to take tests, and making informed decisions about test scores. Assessment literacy could be improved in courses that emphasize: (1) differences between standardized and teacher-made tests; (2) the importance of following administration procedures to ensure score validity; (3) general test-wiseness skills that may be taught to improve general testing performance; and (4) unethical practices including instruction in specific test content, using actual items from the test. At least one tests and measurements course is recommended in order to complete the teacher education program. (LL)

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ASSESSMENT LITERACY: PERCEPTIONS OF PRESERVICE AND INSERVICE TEACHERS REGARDING ETHICAL CONSIDERATIONS OF STANDARDIZED TESTING PROCEDURES

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December 1991

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Assessment Literacy: Perceptions of Preservice and Inservice Teachers Regarding Considerations of Standardized Testing Procedures

Standardized testing has become a pervasive tool in our educational community since its inception in the early 1900s (VanLeirsburg, 1991). An enormous amount of testing occurs in our schools; rough estimates suggest that a large percentage of students in the United States receive more than 2,000 test items each year (Tierney, Carter, & Desai, 1991). Typically, a student may spend from two to six hours each year taking tests throughout the elementary and high school years. Special education students undergo many more hours of testing. These estimates do not include tests which accompany textbooks, local instructional tests, and teacher-made tests (Wigdor & Gardner, 1982).

Smith (1991) investigated the role of external, or mandated testing, on elementary schools. Such testing programs were found to reduce the time available for instruction by 100 hours per school year. External testing also reduced the school year by three to four weeks when the time required for the actual testing, in preparing students to take the tests, and recovering from the testing situation were taken into consideration.

Most school systems use standardized tests to measure academic achievement. National goals by the year 2000 include: preparedness to learn upon school entry; increased competency at the end of grades 4, 8, and 12; 90% high school graduation rate; and adult literacy. The achievement of these goals relies upon standardized testing to "prove" that they have been reached. Such tests enjoy the support of many public agencies, taxpayers, administrators, school boards, and teachers. (Wigdor & Gardner, 1982).

Over the past several years, educators and the public alike have become aware and accepting of the importance of educational outcomes and high achievement standards (Stiggins, 1991). Academic success at the national, state, and individual level is equated with high test

scores; moreover, important instructional and policy decisions are often based on student achievement as measured by these scores. Students benefit if these decisions are based on sound data and an understanding of standardized measurement.

Assessment literacy involves the critical analysis of data and informed consumerism (Stiggins, 1991). Johns and Davis (1991) surveyed preservice and inservice teachers to determine their knowledge about test taking and ethical issues inherent in test-wiseness programs. Results indicated that large numbers of both groups did not fully understand the importance of standardized testing procedures and that over one-third of both preservice and inservice teachers were unclear about the ethics of test-wiseness programs as contrasted to actual teaching to the test.

Brown (1989) found a devotion to and misunderstanding of standardized testing procedures and scores in a survey reviewing some state and local testing guidelines. Most educators determine academic progress on the basis of scores on commercial standardized norm-referenced tests and consider such tests valid indicators of student and school achievement. Also, most of the educators surveyed believed that thinking, creativity, and problem-solving cannot be measured (Brown, 1989).

Educators must understand standardized test data in context to make informed use of the resultant sampling of student academic behaviors. The widespread use of standardized tests and the current national climate regarding testing dictates their existence for some time to come at the state and national levels. The pervasiveness of standardized tests and the high-stakes decisions made as a result of their scores cannot be overstated. Assessment literacy on the part of teachers and educators is imperative due to our nation's devotion to quantitative outcomes.

Assessment literacy should be included in the training of teachers and administrators. The use of standardized tests has grown in the past several years; the training of school personnel should reflect a similar growth pattern. Teacher education should require practical coursework

related to basic concepts of standardized testing: general test-taking considerations, test-taking procedures, and test-wiseness strategies. How much knowledge about standardized tests do preservice and inservice teachers have? A survey of test-taking considerations, test-administration procedures, and test-wiseness strategies was adapted from an earlier study by Johns and Davis (1991) to determine the extent of selected assessment knowledge among preservice and inservice teachers.

Method

Subjects

A total of 249 subjects participated in this study: 130 preservice teachers and 119 inservice teachers. The 130 preservice teachers were enrolled in coursework at a large midwestern university. None of these subjects had teaching experience on a contractual basis; 84% were undergraduates pursuing a bachelor's degree, 9% had earned a bachelor's degree, 5% were completing work toward a master's degree, and 2% omitted this item on the survey. Nearly three-fourths of the total group was working on a degree in elementary education; the remaining one-fourth were completing a degree in special education.

The 119 inservice teachers were attending graduate courses at the same large midwestern university. Two-thirds of this group were elementary teachers. Of the remaining one-third, 17% were special education teachers, 8% were secondary teachers, and 6% were reading teachers. About two-thirds of this group had completed a bachelor's degree; the remaining one-third held a master's degree plus additional hours. The teaching experience of this group ranged from one year to more than 16 years. The majority of these teachers, about two-thirds, had taught from one to five years, and about 15% of the inservice teachers had taught 16 or more years.

About one-third of the preservice group had not had a test and measurements course; nearly two-thirds had taken one such class. Approximately 10% of the inservice group had never

taken a test and measurements course; however, over 90% had taken one or more of these classes.

Survey

An 11-item survey included statements about standardized test-taking procedures and test-wiseness programs. It was adapted from the earlier survey by Johns and Davis (1991) and administered to the preservice and inservice teachers in their university classes. Subjects were asked to mark the response that most nearly matched their beliefs regarding test-taking. Response choices were on a continuum ranging as follows: "strongly agree," "agree," "undecided," "disagree," or "strongly disagree."

Results

The questions in the 11-item survey were rearranged into the following three main categories for this report: general test-taking considerations, standardized test-administration procedures, and test-wiseness. The results are discussed as they relate to each category. Total percentages of the results may range from 99 to 101 due to rounding.

General Test-Taking Considerations

Table 1 contains the results to the survey items that questioned whether or not the subjects agreed that students should be informed they would be taking a test and what the purpose of the test would be. Results are presented separately for preservice and inservice teachers.

In both groups, inservice and preservice, at least 90% agreed or strongly agreed with these statements. Gronlund (1985) and Anastasi (1988) note that the test-taker should be informed in advance that a test will be given, what the purpose of the test will be, and what content may be covered. Respondents appeared to be consistent with the literature in this area.

Table 1

Survey Results for General Test Taking Considerations

Survey Items	Group	Percentage of Responses*					
		SA	A	U	D	SD	O
1. Students should be informed a few days in advance that they will be taking a test.	Inservice	79	17	1	0	3	0
	Preservice	76	18	2	3	1	1
2. Test purposes or intents should be explained to students before the testing date.	Inservice	85	13	2	0	0	0
	Preservice	78	18	2	0	0	1

*strongly agree, agree, undecided, disagree, strongly disagree, omit

Standardized Test-Administration Procedures

Table 2 presents responses to the three statements from the survey used to determine the degree to which preservice and inservice subjects understood standardized testing procedures.

Responses to items 3, 4, and 5 varied considerably. Almost one-fourth to one-third of the responses by both inservice and preservice subjects were undecided. From 40% to 58% of both groups strongly agreed or agreed with the stated procedures for giving tests; around 20% to 30% of both groups disagreed or strongly disagreed.

According to Gronlund (1985), standardized tests should not be given in the same manner as teacher-made tests. Approximately 40% of both preservice and inservice teachers, however, believed that the two types of tests should be administered in a similar manner.

Standardization requires that the same directions be read to all students; thus, reading directly from the manual for such a test is vital. Nevertheless, approximately 20% of the inservice teachers and 26% of the preservice teachers disagreed with this statement.

Table 2

Survey Results for Test-Administration Procedures

Survey Items	Group	Percentage of Responses*					
		SA	A	U	D	SD	O
3. Standardized tests should be given in the same manner as teacher-made tests.	Inservice	17	23	30	24	6	0
	Preservice	14	28	35	18	3	1
2. Teachers should read the directions of standardized tests directly out of the teacher's manual.	Inservice	25	33	23	13	6	0
	Preservice	18	25	30	21	5	1
5. Teachers should give special assistance to poor readers by reading the standardized tests items aloud.	Inservice	18	30	23	23	7	0
	Preservice	15	27	28	22	8	1

*strongly agree, agree, undecided, disagree, strongly disagree, omit

Unless directed by the testing manual, items may not be read aloud for poorer readers. Only 30% of the inservice and preservice teachers disagreed or strongly disagreed with the statement. Surprisingly, nearly 50% of the inservice teachers agreed with helping poor readers by reading items aloud. Responses to this item by both preservice and inservice teachers indicate a lack of knowledge in the area of standardized test-administration guidelines as promoted by assessment experts and the manuals of many standardized tests.

Test-Wiseness Preparation

Six items from the survey related to test-wiseness. Items 6 through 11, along with the responses of inservice and preservice teachers, are contained in Table 3.

Table 3

Survey Results for Test-Wiseness Preparation

Survey Items	Group	Percentage of Responses*					
		SA	A	U	D	SD	O
6. It is ethical to teach test-wiseness skills in order to improve test scores.	Inservice	47	36	8	7	2	0
	Preservice	29	45	18	6	0	1
7. Using class time to teach test taking skills can be productive for students.	Inservice	45	45	8	2	1	0
	Preservice	32	54	8	4	1	1
8. Students should become familiar with the mechanics of a standardized test before actual testing begins through the use of practice exercises.	Inservice	43	45	10	1	1	0
	Preservice	38	49	8	4	1	1
9. Teaching students how test questions are constructed is a legitimate role of the teacher.	Inservice	17	37	31	11	4	0
	Preservice	15	38	27	18	2	1
10. Test-wiseness programs should include material from the actual tests to be taken by students.	Inservice	11	21	18	34	16	0
	Preservice	12	19	28	35	4	2
11. Students should be instructed in the subject matter of specific standardized tests.	Inservice	12	18	35	26	8	0
	Preservice	9	33	37	16	3	2

*strongly agree, agree, undecided, disagree, strongly disagree, omit

Items 6 and 7 measured the ethical aspect of teaching test-taking skills. About 75% of both groups agreed that teaching test-taking skills can be beneficial to the student. In the inservice group alone, over 80% of the subjects surveyed agreed with such techniques. The preservice teachers were slightly less certain about the ethics of teaching test-taking skills and about 20% were undecided.

Items 8, 9, 10, and 11 of the survey were designed to determine if the two groups of subjects were aware of the difference between coaching (actually teaching to the test) and teaching

test-wiseness strategies. Item 8 dealt with the use of sample questions to familiarize students with the testing format. Approximately 90% of both groups agreed that sample questions should be used to make students familiar with the actual test. Item 9 was concerned with the legitimacy of acquainting students with the construction of test questions. About 30% of both groups were uncertain about this practice, but slightly more than half of each group agreed that teaching how test items are constructed is a legitimate role of the teacher.

Items 10 and 11 dealt with teaching specific content material included within standardized tests and resulted in a variety of responses from both the preservice and inservice teachers. Almost 20% of the inservice teachers and 30% of the preservice teachers were undecided about whether test-wiseness programs should include actual material from the standardized test to be taken by the students. However, about 30% of both groups agreed that such material should be included in test-wiseness programs. Approximately 50% of the inservice teachers and about 40% of the preservice teachers were aware that the actual material from standardized tests should not be used prior to the testing situation. Over 35% of both groups were undecided as to whether students should be instructed in the subject matter of specific standardized tests; at least 30% of both groups agreed that such content instruction should take place.

Test-wiseness programs generally include instructing students in the mechanics of testing and the types of items that comprise a test. Taking class time to instruct students in relaxing and responding may help to better their scores as they apply these skills to all content domains. Test-wiseness programs are generally considered ethical and beneficial although material from actual standardized tests should not be used in the instruction of test-taking skills (Anastasi, 1988). Using actual test items or specific material from a test will cause the score to become an invalid measure, not representative of the student's actual knowledge (Gronlund, 1985).

There is, however, a distinction between test-wiseness and coaching (Ritter & Idol-Maestas, 1986). Test-wiseness is considered the instruction of test-taking skills that may be applied to many types and domains of testing. Coaching is instruction in the specific content being measured and it serves to inflate a student's score, not measure actual achievement over time. Inflated scores are probably not true measures of a student's achievement when compared to the norming population.

In summary, the pattern of responses to the survey by preservice and inservice teachers was similar for both general test-taking considerations and test-taking procedures. The general pattern of response was different for both groups relating to the ethical considerations of test-wiseness. Both groups, preservice and inservice teachers, offered a large percentage of responses which were inconsistent with the literature and test-taking procedures and test-wiseness programs.

Discussion and Recommendations

The eleven-item survey used in this study was adapted from an earlier study by Johns and Davis (1991) to determine whether preservice and inservice teachers were knowledgeable about the ethical considerations of test-wiseness programs. The overall response patterns are similar in both studies. Preservice and inservice teachers could profit from additional knowledge about standardized test-administration procedures and test-wiseness programs. Requiring at least one test and measurements course for the completion of teaching degree programs would probably be beneficial in building needed knowledge. Currently, only four states require that prospective teachers take at least one tests and measurements course (Hills, 1991). At least one-third of the preservice teachers and about 10% of the inservice teachers surveyed in this study had not taken any testing courses.

Educators must have awareness of basic standardized testing procedures. The ethical considerations of test-wiseness as opposed to actual coaching for a specific test must be understood in order to maintain the validity and integrity of tests. Standardized tests are used at all grade levels, in most subject areas, and may determine eligibility of students for special education. An awareness of the strengths and limitations of these testing tools is essential for all educators. Assessment literacy is a component that should be included in the education of teachers and administrators. Because a majority of subjects in the study indicated that they had taken a test and measurements course, the content in such courses might need to be reexamined.

Mehrens and Kaminski (cited in Hills, 1991) developed a seven-point continuum of current practices used to prepare students to take standardized tests:

1. general instruction on the objectives of the curriculum,
2. instruction on test-taking skills,
3. instruction on objectives generated by looking at the objectives measured by a variety of standardized tests,
4. instruction on objectives specifically matching the skills involved in the standardized test to be used,
5. instruction on specifically matched skills in which instruction follows the same item format as the test questions,
6. practice on a parallel form of the test to be used, and
7. practice on the actual tests to be used (Hills, 1991, p. 544).

Practices 1 and 2 are typically considered ethical and advisable; however, practices 6 and 7 are highly unethical. Practices 3, 4, and 5, the middle of the continuum by Mehrens and Kaminski, detail testing preparation practices which border on the unethical. Respondents to the survey covered the entire seven-point continuum.

Of concern is the evident lack of assessment literacy from many of the respondents. Approximately one-third of both preservice and inservice teachers marked "undecided" for issues

related to test-taking procedures and test-wiseness programs. At least 45% of all respondents believed that teachers should give poor readers extra assistance by reading the standardized test items aloud, a practice which would invalidate the testing results. At least 20% of both preservice and inservice teachers did not realize that directions should be read aloud directly from the manual. Nearly one-third of both groups believed that coaching, in the form of including actual instruction in content material from the test, is an ethical practice. With the pervasive and increasing use of standardized tests, both preservice and inservice teachers will need to increase their assessment literacy in order to administer standardized tests correctly, prepare students to take tests, and make informed decisions about test scores.

Preservice teachers could improve their assessment literacy within methods or measurement coursework emphasizing these principles:

1. Teacher-made and standardized tests have differences.
2. Standardized procedures must be followed to ensure score validity.
3. General test-wiseness skills may be taught in order to improve general testing performance.
4. Unethical practices include instructing in specific test content, using actual items from the test, coaching, and helping students by reading items to them.

Inservice teachers would benefit from attention to these points as well. Staff development programs and additional coursework should help to improve the assessment literacy of educational professionals. Professionals who teach courses in assessment ought to study their outlines to ensure that attention is devoted to ethical dimensions of test preparation and administration.

Haladyna, Nolen, and Haas (1991) point out that standardized achievement test scores have become the operational definition for educational achievement. Pressures to raise test scores at all costs are great. The result has been what has been referred to as a pollution of test scores (Haladyna, Nolen, & Haas, 1991). Two major practices have contributed to the pollution of

standardized test scores: how public schools prepare students to take the standardized test; and nonstandard practices and conditions under which tests are administered (Haladyna, Nolen, & Haas, 1991, p. 2). The instruction in general test-taking procedures, ethics related to standardization procedures, and test-wiseness programs can improve the assessment literacy of educators and also result in more valid test scores. Without such knowledge, standardized test scores become meaningless numbers.

Stiggins (1991) notes a bleak picture of assessment literacy of those filling positions in educational leadership. Most states do not require explicit training in assessment as a part of teacher certification. Further, when assessment training is offered to teachers, it falls short of providing the information necessary to produce assessment literates. "To complete this picture, those trained to become administrators are often trained less well in basic assessment than are the teachers whose work they are supposed to supervise" (Stiggins, 1991, p. 535).

In order that educators become good consumers of the data testing can provide, the task of preparing teachers and administrators to become literate in dealing with assessment issues and tools becomes critical. The time has come to improve and increase assessment literacy. At the very least, coursework in assessment should deal with areas of concern raised in this report. The larger task would be for teachers then to reduce the gap between this knowledge and actual practice.

References

Anastasi, A. (1988). Psychological testing (6th ed.). New York: Macmillan.

Brown, R. (1989). Testing and thoughtfulness. Educational Leadership, 46, 31-33.

Gronlund, N. E. (1985). Measurement and evaluation in teaching. New York: Macmillan.

Haladyna, T. M., Nolen, S. B., & Haas, N. S. (1991). Raising standardized achievement test scores and the origins of test score pollution. Educational Researcher, 20, 2-7.

Hills, J. R. (1991). Apathy concerning grading and testing. Phi Delta Kappan, 72, 540-545.

Johns, J. L., & Davis, S. J. (1991). Perceptions of preservice and inservice teachers regarding test-taking procedures and test-wiseness programs (Literacy and Research Report No. 4). DeKalb: Northern Illinois University.

Ritter, S., & Idol-Maestas, L. (1986). Teaching middle school students to use a test-taking strategy. Journal of Educational Research, 79, 350-357.

Smith, M. L. (1991). Put to the test: The effects of external testing on teachers. Educational Researcher, 20, 8-11.

Stiggins, R. J. (1991). Assessment literacy. Phi Delta Kappan, 72, 534-539.

Tierney, R. J., Carter, M. A., & Desai, L. E., (1991). Portfolio assessment in the classroom. Norwood, MA: Christopher-Gordon.

VanLeirsburg, P. (1991). The historical development of standardized reading tests in the United States, 1900-1991. Unpublished doctoral dissertation, Northern Illinois University, DeKalb.

Wigdor, A. K., & Gardner, W. R. (1982). Ability testing: Use, consequences, and controversies, Part II, Documentation section. Washington, DC: National Academy Press.

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